

AGALINIS GYPSOPHILA (SCROPHULARIACEAE), A NEW SPECIES FROM
GYPSUM OUTCROPS IN NUEVO LEON MEXICO

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Exploration of the considerable gypsum outcrops surrounding Cerro Potosi, the highest peak in Nuevo Leon, has yielded a large number of localized edaphic endemics (Turner, 1985; etc.). The taxon discussed below is remarkable in being the only perennial reported for the genus Agalinis, although it is almost certainly derived from the annual species, A. peduncularis (Benth.) Pennell.

AGALINIS GYPSOPHILA B. L. Turner, sp. nov.

A. peduncularis accedens sed plantis perennis, foliis glabratis.

Perennial herbs to 50 cm high, usually darkening after preservation. Stems stiffly erect, slender, glabrous or nearly so, usually much-branched from the base, on robust plants these arising from the crown of well-developed lignescent tap-roots. Leaves 1-2(3) cm long, 0.5-1.5 mm wide, glabrous or nearly so. Pedicels slender, ascending-spreading, 2-4 cm long. Flowers largely as in A. peduncularis, but with mostly smaller corollas (15-20 mm long). Capsule and seeds as in A. peduncularis.

TYPE: MEXICO. NUEVO LEON. Municipality of Galeana. 1.6 mi N of Galeana on S facing gypsum hillside (ca 24° 50' x 100° 05'), 10 Oct 1985; B. L. Turner, T. Ayers & R. Scott 15588 (holotype TEX; isotype MEXU).

ADDITIONAL SPECIMES EXAMINED: NUEVO LEON. Munic. Galeana: Galeana, dry mountain slope, 1 Aug 1939, Chase et al. 7716 (LL); 10 km NE Pocitos, 26 Aug 1985, Hinton et al. 18770 (TEX); above El Nogal, 5 Dec 1983, Hinton et al. 18090 (TEX); Santa Rita, 23 Aug 1981, Hinton et al. 18328 (TEX); ca 8 km E of San Roberto Junction, 12 Aug 1981, Lowry & Warnock 3180 (TEX); ca 15 m SW of Galeana, 18 Jul 1935, C. H. & M. T. Mueller 1068 (TEX); Hacienda Pablillo, 11 Aug 1936, Taylor 154 (TEX); NE lowermost slopes of Cerro Potosi along road to microwave station; ca 12 mi NW of Galeana, 20 Aug 1979, Turner & Davies A-38 (TEX).

The species, so far as known, occurs only on gypsum outcrops in the pine-oak zone about Cerro Potosi from 1700 to 2300 meters. Collections have been seen from at least 10 different localized populations in this region, (cited above, but several noted in the field and not collected), always from gypsum substrates.

Agalinis gypsophila is closely related to A. peduncularis and might, with equal merit, be considered only varietally distinct; however, as species go in the genus (Pennell, 1929), it is as distinct as most. It can be readily distinguished from A. peduncularis by its perennial habit, the fascicle of aerial stems arising from a tough perennial crown. In addition, it is glabrous or nearly so, the numerous specimens examined, both in the field and in herbaria, lack the rough scabrous pubescence which is characteristic of A. peduncularis. Further, A. gypsophila, so far as known, is confined to gypsum outcrops in the area surrounding Cerro Potosi. Its likely progenitor, the annual A. peduncularis, is not known to occur in the state of Nuevo Leon, although it is a wide spread, commonly collected, species elsewhere in Mexico. Pennell (1929), in his treatment of Agalinis, did not examine material of what I consider A. gypsophila. Indeed, he does not report any collections of Agalinis from the state of Nuevo Leon. If typical A. peduncularis is subsequently found over a large area of the limestone outcrops surrounding the gypsum substrates about Cerro Potosi I would be the first to suggest that the populations concerned are but recently evolved edaphic variants, albeit genetic. However, since I attempted to find such individuals without success and since A. gypsophila occurs with a large number of other very remarkable endemic gypsophiles (e.g., Antiphytum hintoniorum Higgins & Turner; Lobelia margarita Wimmer; Verbesina hintoniorum Turner; Helianthella gypsophila Turner; Linum modestum Rogers; Nama hitchcockii Bacon, etc.) it seems perfectly logical to assume that Agalinis gypsophila is itself part of this local assemblage of edaphic endemics.

LITERATURE CITED

- Pennell, F. W. 1929. Agalinus and allies in North America. I. Proc. Acad. Natural Sci. Phila. 80: 339-449.
- Turner, B. L. 1985. A new species of Verbesina (Asteraceae) from gypsum outcrops in southern Nuevo Leon, Mexico. Brittonia 37: 96-97.